



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,908	07/25/2007	Sylvie Tournade	3712036.00755	1892
29157	7590	05/28/2010	EXAMINER	
K&L Gates LLP P.O. Box 1135 CHICAGO, IL 60690			ARIANI, KADE	
			ART UNIT	PAPER NUMBER
			1651	
			NOTIFICATION DATE	DELIVERY MODE
			05/28/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

chicago.patents@klgates.com

Office Action Summary	Application No. 10/598,908	Applicant(s) TOURNADE ET AL.	
	Examiner KADE ARIANI	Art Unit 1651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 12 is/are pending in the application.
- 4a) Of the above claim(s) 8-11, 13 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 12 is/are rejected.
- 7) ☒ Claim(s) 1, 3, 4, and 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/12/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The amendment filed on February 15, 2010, has been received and entered.

Claims 1-14 are pending in this application, claims 8-11, 13, and 14 are withdrawn from consideration, and claims 1-7 and 12 are examined on their merits.

Election/Restrictions

Applicant's election with traverse of Group I (claims 1-7 in the reply filed on 02/14/2010, is acknowledged. The traversal is on the ground(s) that Group V (claim 12) is also drawn to a liquid product and should be a part of Group I. This argument is found persuasive therefore, Group I (claims 1-7) and Group V (claim 12) are examined together. Claims 8-11, 13, and 14 are withdrawn from consideration.

Claim Objection

Claims 1, 3, 4, and 6 are objected to because of the following informalities:

In claim 1 (line 5) delete "bacteria" and insert --microorganisms-- in its place.

In claim 3 (line 2) delete "use" and insert --utilize-- in its place.

In claim 4 (line 2) delete " microorganism is a strain" and insert --microorganisms are-- in its place.

In claim 4 (line 2) delete "of genders" and after "consisting" insert --genus--.

In claim 6 (line 2) delete "microorganism is a probiotic" and insert --
microorganisms are probiotics-- in its place.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1 the recitation "...pH decreasing less than 2 points and an amount of living bacteria decreasing less than 2 log-units occurs..." is confusing and therefore renders the claim indefinite, because from the way claim 1 is written it is not exactly clear how the claimed characteristics, pH and log-unit of the living microorganisms in the product during the storage, should change.

Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly define the metes and bounds of the subject matter which applicant regards as the invention.

Claim 12 is indefinite, since the claim does not clearly set forth the metes and bounds of the patent protection desired. Claim 12 "recites "a liquid product providing benefits of living probiotics, whereby the product can be stored at temperatures above 10°C for at least one month" thus it does not clearly set forth the scope of the claimed product (i.e. the temperature at which the product should be stored, the duration of storage, and the condition of the probiotics are unclear).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6, 7 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Reniero et al. (WO 00/53202).

Claims 1-4, 6, 7 and 12 are drawn to a liquid product which is water-or milk-based and comprises living microorganisms, having a shelf-life of at least 1 month at 10°C, and during the 1 month at 10°C the amount of living bacteria decreases less than 2 log-units, which is free of carbohydrates that can be metabolized by the microorganisms, product comprising milk proteins, the microorganisms do not metabolize lactose, microorganisms are from genus *Lactobacillus*, microorganisms are

Art Unit: 1651

probiotics, the pH of the product at the beginning of storage is 4 or higher, and a liquid product providing benefits of living probiotics, whereby the product can be stored at temperatures above 10°C.

Reniero et al. disclose a liquid product which is water-based and comprises living microorganisms, having a shelf-life of at least 1 month at 10°C, and during the 1 month at 10°C period the amount of living bacteria decreases less than 2 log-units, which is free of carbohydrates that can be metabolized by the microorganisms, a *Lactobacillus* (a cereal drink comprising *L. casei* CNNM I-2116 or ST11 which is stored at 10°C for 30 days, and the survival rate after 30 days less than 2 log units) (page 29 of the "PDF" Figure 3., viable cell count for the 1st curve form the top highest count about 9.2 log cfu/ml and lowest about between 8.8 and 9.0, and p.5 Fig.3. description). Reniero et al. also disclose the pH of at the beginning of storage at 10°C is 4 or higher (pH of 4.4) (p.17 Example 8. 2nd paragraph). Reniero et al. disclose a microorganism that does not metabolize lactose (*L. casei* CNNM I-2116) (p.23 claim 6). Reniero et al. further disclose milk (milk proteins) can be used (p. 24 claim 14), and microorganisms are probiotics (p.2 2nd paragraph lines 1-2).

Reniero et al. therefore clearly anticipate the claimed liquid product.

Claim Rejections - 35 USC § 103

Art Unit: 1651

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reniero et al. (WO 00/53202) in view of Kailasapathy K. (Current Issue Intest. Microbiol., 2002, Vol.3, p.39-48) and further in view of Hottinger et al. (US Patent No. 5,382,438).

As mentioned immediately above, Reniero et al. teach the limitations of claims 1-4, 6-7 and 12.

Reniero et al. do not teach the product at 20°C experiences a decrease in pH of less than 2 points and loss of living bacteria is less than 2 log-units. However, Kailasapathy teaches probiotic microorganisms with extended shelf-life at room temperatures for formulating products (microencapsulated probiotic strains with extended shelf-life at room temperatures (about 20°C) (p.46 1st column 2nd paragraph lines 8-13). Kailasapathy also teaches microencapsulated probiotics have increased survival in acid fermented products (p.45 1st column 3rd paragraph lines 8-11).

Moreover, Hottinger et al. teach because of the symbiosis of microorganisms it is possible to keep a milk-based product (yogurt) even at ambient temperature without the pH falling by more than about 0.05 to 0.5 unit (column 4 lines 5-9). Hottinger et al. further teach the degree of post-acidification in the milk-based product may be

Art Unit: 1651

modulated by adding a carbohydrate (glucose) to the milk and using a *Lactobacillus* strain which is unable to metabolize the added glucose (column 8 lines 15-37).

Therefore, a person of ordinary skill in the art at the time the invention was made, would have been motivated to apply the prior art teachings and to use a probiotic strain with extended shelf life at room temperature (about 20°C) as taught by Kailasapathy in the liquid product of Reniero et al. with a reasonable expectation of success in providing a liquid product comprising probiotic microorganisms with extended shelf-life for 1 month at 20°C, because Kailasapathy teaches probiotic microorganisms with extended shelf-life at room temperatures (about 20°C) can be formulated into food products, and because Hottinger et al. teach due to the symbiosis of microorganisms in a milk-based product it is possible to keep the product even at ambient temperature without the pH falling by more than about 0.05 to 0.5 unit.

Conclusion

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kade Ariani whose telephone number is (571) 272-6083. The examiner can normally be reached on IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Wityshyn can be reached on (571) 272-0926. The fax phone

Art Unit: 1651

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kade Ariani/
Examiner, Art Unit 1651